



Dart Aerospace Ltd.  
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Canada

Tel (613) 632-5200

**D2972**  
**Job Sheet 179145**



Part No: D2972

Job Qty: 24 ea

Part Name: Bushing



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 6/14/18

Job Tracking No:

Due Date: 7/4/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV A1 IPP A 00.05.18 New Issue EC IPP Rev:B Now Made In-House 07-07-19 JLM Verified By:EC  
Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation          | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |                 | Sign-off                                                                                                                                         |
|-------|--------------------|--------|------------|----------|-----------|---------|-----------------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
|       |                    |        |            |          | Setup hrs | Run Hrs | Workcenter / Supplier | Lead Time       |                                                                                                                                                  |
| 90    | Start up Operation | 24 Ea  |            | 7/4/18   | 0.00      | 0.00    | Start Up Machining-1  |                 | <i>M.P.</i> 18/07/22<br><i>M.P.</i> 18/07/22<br><i>M.P.</i> 18/07/22<br><i>JUL 23 2018</i><br><i>DAS</i><br><i>21 JUL 24 2018</i><br><i>9-50</i> |
| 100   | Hardinge           | 24 pcs |            | 7/4/18   | 0.00      | 5.31    | Hardinge              |                 |                                                                                                                                                  |
| 110   | QC                 | 24 pcs |            | 7/4/18   | 0.00      | 0.00    | QC2 Machining-1       |                 |                                                                                                                                                  |
| 120   | QC                 | 24 pcs |            | 7/4/18   | 0.00      | 0.00    | QC8 Machining-1       |                 |                                                                                                                                                  |
| 130   | Packaging          | 24 pcs |            | 7/4/18   | 0.00      | 0.00    | Packaging3-1          | <i>STON 88'</i> |                                                                                                                                                  |
| 140   | QC21-SA            | 24 Ea  |            | 7/4/18   | 0.00      | 0.00    | QC21                  |                 |                                                                                                                                                  |

Part Op 110 - QC2- Inspect parts off machine FAI/FAIB  
Descriptions: 120 - QC8- Inspect parts - second check  
140 - QC21- Final Inspection - Work Order Release

### Job BOM

| Part / Item | Component Name     | Quantity          | Operation             | Container      |
|-------------|--------------------|-------------------|-----------------------|----------------|
| M303R1.000  | 303 Round Bar 1.00 | 2.4000 ft (.1 ea) | 90-Start up Operation | <i>5090363</i> |

### Job Allocations

| Operation             | Component Part | Required | Inventory | Allocated |
|-----------------------|----------------|----------|-----------|-----------|
| 90-Start up Operation | M303R1.000     | 2        | 29        | 0         |

### Part Specifications

| Spec No | Description | Target/Tolerance               | Limits                         | Type     | Special Comments |
|---------|-------------|--------------------------------|--------------------------------|----------|------------------|
| 1       | Bushing     | 0.030Inches $\pm$ 0.010        | <i>0.020</i><br>0.040<br>0.020 |          |                  |
| 2       | Bushing     | 20.000Degrees $\pm$ 0.500      | <i>20</i><br>20.500<br>19.500  | Angle    |                  |
| 3       | Bushing     | 0.005Inches + 0.005<br>- 0.000 | <i>0.003</i><br>0.010<br>0.005 | Radius   |                  |
| 4       | Bushing     | 0.572Inches $\pm$ 0.010        | <i>0.571</i><br>0.582<br>0.562 |          |                  |
| 5       | Bushing     | 0.118Inches $\pm$ 0.010        | <i>0.118</i><br>0.128<br>0.108 |          |                  |
| 6       | Bushing     | 1.190Inches $\pm$ 0.010        | <i>1.190</i><br>1.200<br>1.180 |          |                  |
| 7       | Bushing     | 0.787Inches $\pm$ 0.010        | <i>0.787</i><br>0.797          | Diameter |                  |

|    |         |                                |       |                |          |
|----|---------|--------------------------------|-------|----------------|----------|
|    |         |                                |       | 0.777          |          |
| 8  | Bushing | 0.625Inches ± 0.010            | 0.824 | 0.635<br>0.615 | Diameter |
| 9  | Bushing | 0.472Inches ± 0.010            | 0.471 | 0.482<br>0.462 | Diameter |
| 10 | Bushing | 0.257Inches + 0.006<br>- 0.001 | 0.256 | 0.263<br>0.256 | Diameter |

Plex 6/14/18 10:10 AM Dart.lajeunesse.marie



Container No: S094847



Part: D2972  
Job No: 179145  
Serial No/Batch: S094847  
Revision:  
Inspector:  
Exp Date:  
Instructions:

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www.dartaerospace.com

Date: 07/22/18

DQA: \_\_\_\_\_ Date: \_\_\_\_\_

## WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only

| Work Order:                                                                                                     |  | DISPOSITION                                                                                                                                              |  |                      |  | AGAINST DEPARTMENT/PROCESS                                                                                                                               |  |  |  |                                                                                                                                                       |  |  |  | Disposition                                                                                                                                                           |  | Completed By |  |                                                                                                            |  |                       |  |  |  |  |  |
|-----------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------------|--|------------------------------------------------------------------------------------------------------------|--|-----------------------|--|--|--|--|--|
| Part No. _____                                                                                                  |  | Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |  |                      |  | Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Thermoforming <input type="checkbox"/><br>Large Fab <input type="checkbox"/> |  |  |  | Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/><br>Composite <input type="checkbox"/> |  |  |  | Water Jet <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/><br>Supplier <input type="checkbox"/> |  |              |  | Engineering <input type="checkbox"/><br>Quality <input type="checkbox"/><br>Other <input type="checkbox"/> |  | MRB (QS1042) Approval |  |  |  |  |  |
| NCR No. _____                                                                                                   |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Date: _____                                                                                                     |  | Step #: _____                                                                                                                                            |  | QTY Effective: _____ |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Description Work Order Deviation                                                                                |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  | Disposition                                                                                                                                                           |  |              |  | Completed By                                                                                               |  |                       |  |  |  |  |  |
|                                                                                                                 |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  | QC / QA Coordinator Approval                                                                                                                                          |  |              |  | Lead hand / Supervisor Approval Verification                                                               |  |                       |  |  |  |  |  |
|                                                                                                                 |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
|                                                                                                                 |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
|                                                                                                                 |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| <b>FAULT CATEGORY</b>                                                                                           |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| re <input type="checkbox"/> Power Loss/Surge <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Folio/Program <input type="checkbox"/> Outside Dimensions <input type="checkbox"/>                              |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Grain <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/>                                    |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Weld <input type="checkbox"/> Part Incorrect <input type="checkbox"/>                                           |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Wrong Stock Pulled <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/>                          |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Out of Sequence <input type="checkbox"/> Part Moved <input type="checkbox"/>                                    |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Off-set <input type="checkbox"/> Drawing <input type="checkbox"/>                                               |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Misabeled <input type="checkbox"/> Finish <input type="checkbox"/>                                              |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Fit/Function <input type="checkbox"/> Misread <input type="checkbox"/>                                          |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |
| Misaligned/off center <input type="checkbox"/> Turning Sequence <input type="checkbox"/>                        |  |                                                                                                                                                          |  |                      |  |                                                                                                                                                          |  |  |  |                                                                                                                                                       |  |  |  |                                                                                                                                                                       |  |              |  |                                                                                                            |  |                       |  |  |  |  |  |



